(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
29 September 2005 (29.09.2005)

PCT

(10) International Publication Number
WO 2005/091542 A1

(51) International Patent Classification[7]: H04L 7/00

(21) International Application Number: PCT/JP2005/005596

(22) International Filing Date: 18 March 2005 (18.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2004-079298 18 March 2004 (18.03.2004) JP

(71) Applicant (*for all designated States except US*): MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD. [JP/JP]; 1006, Oaza Kadoma, Kadoma-shi, Osaka, 5718501 (JP).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): NAKAHARA, Hideki. KIMURA, Tomohiro. TAKAI, Hitoshi. MORI, Kenichi.

(74) Agents: NAKAJIMA, Shiro et al.; 6F, Yodogawa 5-Bankan, 2-1, Toyosaki 3-chome, Kita-ku, Osaka-shi, Osaka, 5310072 (JP).

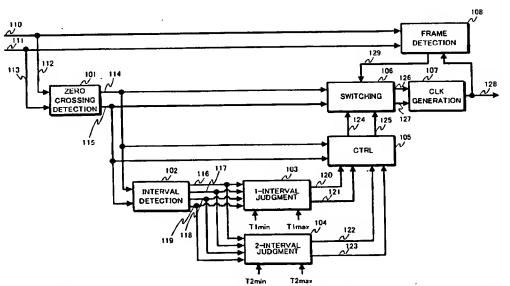
(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CLOCK RECOVERY CIRCUIT AND RECEIVER USING THE CIRCUIT



(57) Abstract: A clock recovery circuit capable of fast and accurate clock phase locking even in the presence of frequency shift and noise. The input signal includes, in order, a preamble with an alternating bit sequence pattern, a unique word and data. A detection unit detects zero crossings and measures the time interval therebetween. A 1-interval judgment unit judges whether an interval signal is within a predetermined range, and a 2-interval judgment unit sums two adjacent interval signals and judges whether the 2-interval signal is within a predetermined range. A control unit controls a zero-crossing signal based on the judgment result and outputs a valid zero-crossing signal if judged in the affirmative. A switching unit switches between outputting the zero-crossing signal and the valid zero-crossing signal as valid phase error information based on a frame reception signal input from a frame detection unit. A clock generation unit uses the valid phase error information in generating a symbol clock.

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